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Monterey, California

THESIS

ACQUISITION STRATEGY DEVELOPMENT AT PROGRAM INITIATION: CONCEPTS, REALITIES, AND METHODOLOGY

by

Bruce E. Bissett

December 1984

Thesis Advisor: David V. Lamm

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One of the most important tasks faced by a Program Manager at the initiation of a major systems acquisition program is the formulation of the program's acquisition strategy. In this study, the researcher identifies the principal characteristics of an acquisition strategy, discusses the constraints and limitations which must be considered in its development, and considers the realities involved in the formulation process. The study also investigates the concept of strategic planning

#20 - ABSTRACT - (CONTINUED)

and its applicability in the major systems acquisition process. In Chapter V, the study develops a methodology for the formulation of an acquisition strategy at program initiation. The study concludes that in the major systems acquisition process there exists a lack of a clear distinction between acquisition strategies and acquisition plans, a lack of long range planning, and a failure of higher levels to clearly communicate overall strategies, policies, and priorities which will impact on the program.

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Acquisition Strategy Development at Program Initiation: Concepts, Realities, and Methodology

by

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Captain, United States Marine Corps
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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

One of the most important tasks faced by a Program Manager at the initiation of a major systems acquisition program is the formulation of the program's acquisition strategy. In this study, the researcher identifies the principal characteristics of an acquisition strategy, discusses the constraints and limitations which must be considered in its development, and considers the realities involved in the formulation process. The study also investigates the concept of strategic planning and its applicability in the major systems acquisition process. In Chapter V, the study develops a methodology for the formulation of an acquisition strategy at program initiation. The study concludes that in the major systems acquisition process there exists a lack of a clear distinction between acquisition strategies and acquisition plans, a lack of long range planning, and a failure of higher levels to clearly communicate overall strategies, policies, and priorities which will impact on the program.

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I. INTRODUCTION

A. GENERAL

One of the first tasks faced by a program manager (PM) at program initiation is the development of an acquisition strategy for the program. The acquisition strategy will encompass all aspects of the program including the management concepts to be utilized in the direction and control of the program, the identification of contracting alternatives, test and evaluation requirements, logistics support, manning and training requirements, funding profiles, and a host of other issues. [Ref. 1:p. 2]

One of the key problems in accomplishing this task is the identification of the factors that need to be considered and planned for during the course of the acquisition process. The program manager is required to make decisions in the early part of the program which can have a dramatic effect on the options that will be available to him later on in the program. The acquisition strategy is a vehicle which allows the program manager to evaluate and integrate these decisions so that as few options as possible are eliminated early in the program cycle.

Currently, a program manager receives guidance in the development of his acquisition strategy through various procurement directives and from advice passed informally by current and former program managers. A management tool does not currently exist which assists the program manager in this endeavor.

This study will investigate the development of an acquisition strategy at program initiation and develop a methodology to aid program managers in this effort.

B. OBJECTIVES OF THE RESEARCH

The objectives of this study were: (1) to investigate the concept of strategic planning, (2) identify the major factors which need to be considered in the development of an acquisition strategy, (3) discuss the realites involved in the acquisition strategy formulation process, and (4) to develop a methodology to assist program managers in developing an acquisition strategy at program initiation.

C. RESEARCH QUESTIONS

To achieve the objectives of the research, the following question was posed: What would be the major characteristics of a systems acquisition strategy methodology which could be used by program managers at program initiation?

To answer the basic research question, the following subsidiary questions were addressed:

1. What is an acquisition strategy?
2. What are the general policies governing the development of an individual program acquisition strategy?
3. What are the major factors which need to be considered in the development of an acquisition strategy?
4. How could these factors be integrated into a decision-making methodology which could be used by program managers?

D. RESEARCH METHODOLOGY

The information presented in this study was obtained from (1) currently available literature, (2) telephonic and personal interviews with personnel knowledgeable in the acquisition arena, and (3) interviews with program managers and other program office personnel. The literature search included the Naval Postgraduate School Library, Defense

Technical Information Center, Defense Logistics Studies Information Exchange and applicable directives and instructions governing the acquisition process. Personnel interviewed during the conduct of the research are listed in Appendix A. The questionnaire used during the interviews is contained in Appendix B.

E. SCOPE AND LIMITATIONS

This study is limited to major systems acquisition as currently practiced by the Department of Defense (DoD). The focus of the study was on the development of a systems acquisition strategy methodology which program managers could use to assist them in the development of their program's acquisition strategy at program initiation. Policies affecting the development of acquisition strategy will be discussed, but a detailed analysis of these policies will not be presented.

F. ORGANIZATION OF THE STUDY

The organization of this study generally follows the arrangement of the research questions. Chapter II presents an overview of the systems acquisition process, a conceptual view of long range planning, definitions, and a discussion of the evolution of acquisition strategy. Chapter III provides a discussion, from a theoretical perspective, of the characteristics of an acquisition strategy and the constraints and limitations which need to be considered. In Chapter IV, the realities of acquisition strategy development in the major systems acquisition environment are discussed. Chapter V develops a methodology which could be used by a PM in the development of an acquisition strategy at program initiation and describes how this methodology could be tailored to fit a particular systems acquisition.

Finally, Chapter VI provides the conclusions and recommendations developed as a result of this study, provides answers to the research questions, and provides recommendations for further study.

II. FRAMEWORK AND BACKGROUND

A. THE MAJOR SYSTEMS ACQUISITION PROCESS

The acquisition of major systems by the Department of Defense is a complex process which takes place in a dynamic environment. Technological, legal, fiscal, political and institutional forces have molded the process and changed its nature and direction on a continuous basis. The process, as we know it today, emerged as a result of a study by the Blue Ribbon Defense Panel in 1970 and the issuance of DoD Directive 5000.1 in 1971. The process was further refined in 1976 by Office of Management and Budget (OMB) Circular A-109, Major System Acquisitions (1976). These documents laid the groundwork on which subsequent directives and instructions issued by the DoD and the military services were based. One of the key policies contained in A-109 is the requirement to tailor an acquisition strategy for each program and to refine the strategy as the program proceeds through the acquisition process [Ref. 2:p. 5].

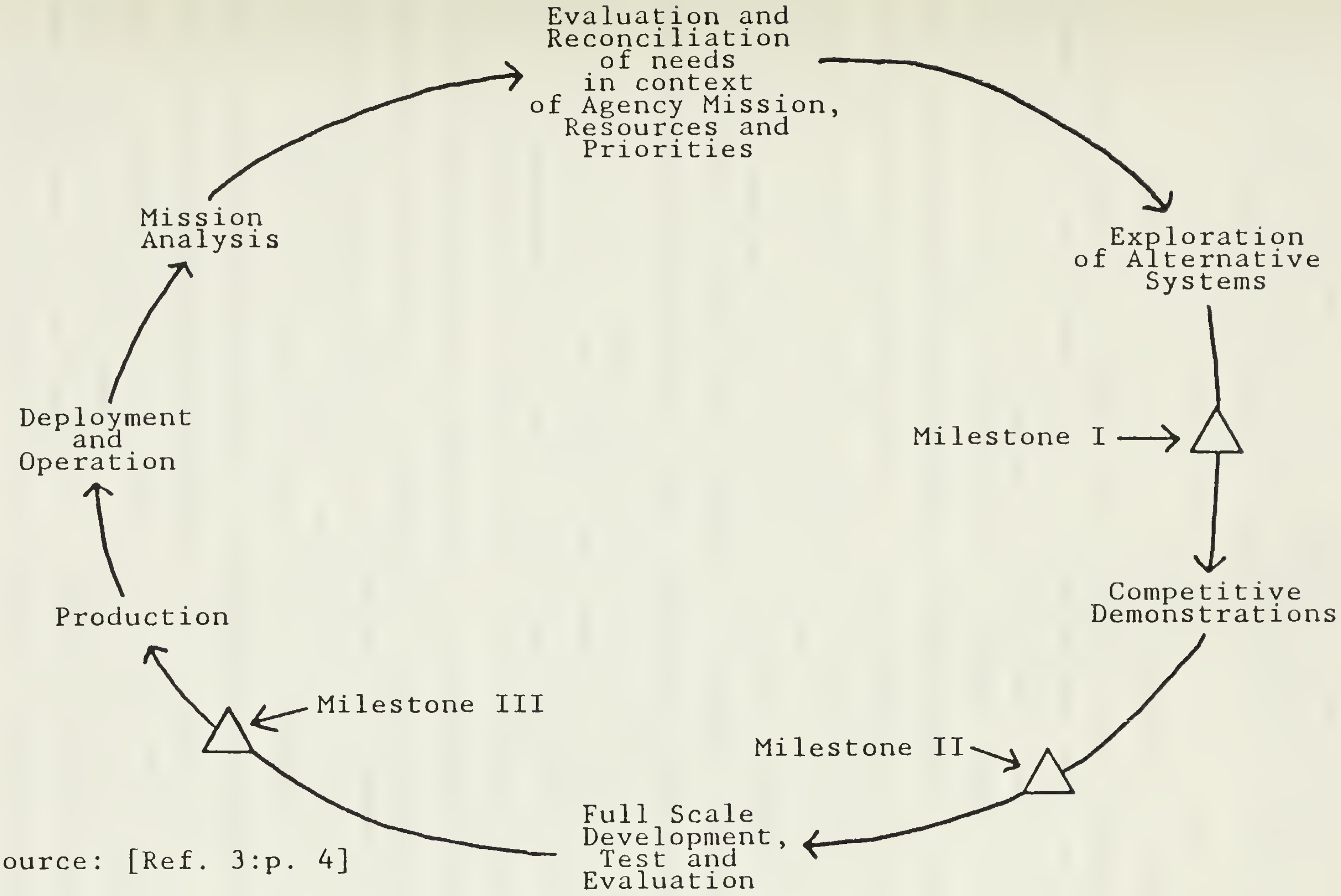
The Secretary of Defense (SECDEF), assisted by the Defense Systems Acquisition Review Council (DSARC), guides and controls the major system acquisition process by a series of acquisition phases, milestone reviews and decision points. Figure 2.1 contains a graphic representation of the major systems acquisition process. The primary goal of the process is to focus management attention on the critical events, milestones and decision-points in the development and production of a major system.

The major systems acquisition process commences with the identification of a deficiency in an existing capability, a decision to establish new capabilities, a significant opportunity to reduce the DoD cost of ownership, or in response to a change in national defense policy [Ref. 1:p. 4].

Once a requirement is identified, the military service prepares a Justification for Major System New Start (JMSNS) to document the deficiency (or opportunity for improvements). In addition to addressing these issues, the JMSNS must provide a summary of the major elements of the proposed acquisition strategy. The JMSNS is submitted with the Service's Program Objectives Memorandum (POM) for the year in which funds are requested. The SECDEF approves the JMSNS in a Program Decision Memorandum (PDM) which validates the requirement and authorizes entrance into the Concept Exploration (CE) Phase.

One of the first tasks faced by a PM at the initiation of a program is the development of an acquisition strategy which sets forth the objectives, resources, management assumptions, extent of competition, proposed contract types, program structure, and tailors the prescribed steps in the major acquisition decision-making process to this strategy [Ref. 1:p. 2]. Once approved, the acquisition strategy serves as the conceptual framework upon which detailed functional (operational) plans are based. The acquisition strategy is updated throughout the process and is included in the program documents which are reviewed and approved at Milestones I, II, and III.

In the CE Phase, a solicitation, in the form of a Request for Proposal (RFP), is issued describing the capability required in mission need terms, not in equipment or hardware solution terms. Industry responses to the RFP are evaluated and contracts are awarded to identify and investigate alternative concepts. At the conclusion of the CE Phase, the PM recommends that one or more of the most promising concepts be carried forward into the Demonstration and


Evaluation and Reconciliation of needs in context of Agency Mission, Resources and Priorities
Exploration of Alternative Systems
Milestone I
Competitive Demonstrations
Milestone II
Full Scale Development, Test and Evaluation
Milestone III
Production
Deployment and Operation
Mission Analysis

Source: [Ref. 3:p. 4]

Figure 2.1 The Major Systems Acquisition Process.

Validation (D&V) Phase. This recommendation is made in the Systems Concept Paper (SCP) which summarizes the results of the CE Phase [Ref. 4:p. 4]. Among other issues, the SCP describes the general strategy for the entire program and provides a detailed strategy for the D&V Phase. Approval of the SCP by the SECDEF provides authority to proceed with the D&V phase [Ref. 1:p. 4]. This decision-point is represented by Milestone I in Figure 2.1.

During the Demonstration and Validation Phase, alternative concepts are developed and validated to determine which concept (or concepts) should proceed into the Full Scale Development (FSD) Phase. The decision to proceed into the FSD Phase is made by the SECDEF and is represented by Milestone II in Figure 2.1. The decision is based on a review of the Decision Coordinating Paper/Integrated Program Summary (DCP/IPS). The DCP expands on the SCP and contains summary information while the IPS contains more detailed program data. As part of the DCP, the acquisition strategy must validate the projected costs and schedule and verify that they are credible and obtainable [Ref. 1:p. 4-1].

The objective during the FSD Phase is to develop a system that is technologically mature and produceable. In order for a system to move into the Production and Deployment (P&D) Phase, it must pass a series of development and operational tests. The decision to enter the P&D Phase is normally made by the Service Secretary unless the decision has been retained by the SECDEF. The SECDEF would retain decision authority if the program had not met established performance thresholds or if cost thresholds had been exceeded. This decision is represented by Milestone III in Figure 2.1. The decision is made based on a review of the updated DCP/IPS and includes a detailed review of the updated acquisition strategy. Completion of the P&D Phase signifies the end of the major system acquisition process.

B. A CONCEPTUAL VIEW OF STRATEGIC PLANNING

> Planning is a process that is directed toward producing one or more future states which are desired and which are not expected to occur unless something is done. Planning is thus concerned both with avoiding incorrect actions and with reducing the frequency of failure to exploit opportunities. [Ref. 5:p. 3]

Few managers would question the need for planning and its value in directing and controlling organizations. Planning is carried out to provide a basis for action [Ref. 6:p. 104], and generically can be described as a process that leads to the development of a plan. The question facing the program manager in his role as a planner is not what should be done tomorrow, but rather, what should he do today in order to be ready for an uncertain tomorrow [Ref. 7:p. 5].

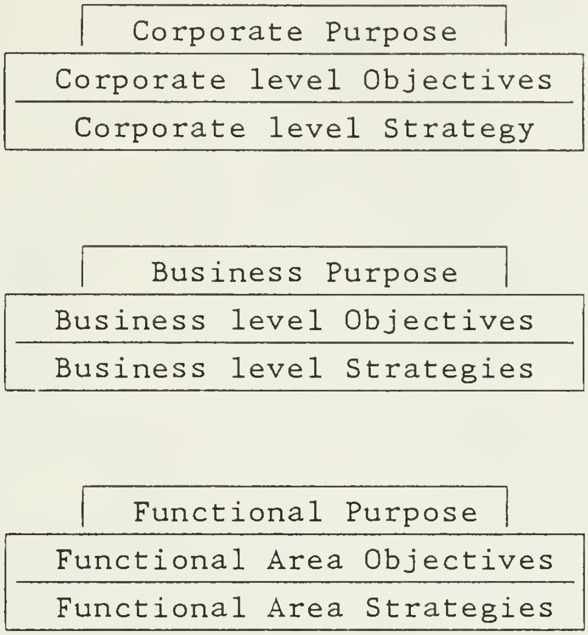
The planning process has traditionally been subdivided into two time dimensions, strategic (or long range) planning and operational (or short range) planning. The distinction between the two is not always well defined since long range and short range are relative terms. The perspective normally adopted is to categorize planning that is broad in scope, pervasive in its impact and end-oriented (objective-oriented) as strategic planning. In contrast, short range planning is typified by detailed goals and plans (i.e., means vice ends-oriented), narrowness of scope and short-sightedness of its coverage. The process is so interrelated, however, that a manager must consider both ends of the planning spectrum together in order to follow the path to success and survival [Ref. 8:p. 48].

The dilemma facing managers is the articulation of a strategic plan which provides sufficient direction to subordinates, properly places emphasis on the project as a whole, and adequately defines the objectives to be strived for yet does not get bogged done in details more suited to functional plans. The danger is to yield to pressures for short term results at the expense of long term objectives and goals.

A key to the planning and decision-making process is the recognition that a decision made today is not an isolated event. Each decision made has an impact on other decisions made or contemplated. It opens up new opportunities and closes off others whether intentionally or unintentionally. The optimal situation would be one in which the decision-maker had perfect knowledge of all of the issues, all possible combinations of feasible solutions, and a clear understanding of the consequences of each decision. Clearly, this type of approach is not realistic.

Many scholars have analyzed and written about the concept and practice of strategic planning over the last fifteen years. Most of them approach strategic planning from a different perspective or differ in their approach. They all, however, have many ideas in common. Examples include (1) the need for the development of a long range strategy, (2) the communication of this strategy to individuals within the organization, (3) the requirement to update and revise the strategy periodically, and (4) the assertion that short range functional plans cannot be meaningfully developed and integrated without first establishing a comprehensive long range strategy. Although most of the literature reviewed for this study concerned strategic planning in the commercial marketplace, it is believed the concepts developed are equally applicable to the major systems acquisition process.

An approach to strategic planning frequently taken is to distinguish between different levels of objectives and strategies and the manner in which they are developed. One such approach [Ref. 9:p. 50], describes a process whereby the objectives and strategy of one level are inter-twined with the objectives and strategy of the next level. This hierarchy is presented in Figure 2.2.


Corporate Purpose
Corporate level Objectives
Corporate level Strategy
Business Purpose
Business level Objectives
Business level Strategies
Functional Purpose
Functional Area Objectives
Functional Area Strategies

Source: Adapted from [Ref. 9:p. 51] and [Ref. 10:pp. 27-29]

Figure 2.2 The Hierarchy of Objectives and Strategies.

In addition to the hierarchy approach, they propose that objectives and strategies are developed either through (1) a bottom up approach, (2) a top down approach, (3) an interactive or negotiated approach, or (4) by a semi-autonomous (or relatively independent) approach [Ref. 9:pp. 74-76].

If this planning hierarchy was related to the major systems acquisition process, the following relationships would result:

Higher level Strategies -- Corporate level Strategy
Individual Program Strategy -- Business level Strategy
Functional Area Strategy -- Functional Area Strategy

These relationships are based on the degree to which policies are developed and implemented, and the latitude available to the decision-maker. The hierarchy of purposes, objectives, and strategies are interdependent. That is, the strategy developed at the functional level is dependent upon the strategy developed at higher levels. This interdependency can, however, have a detrimental effect on the number and kinds of alternatives available.

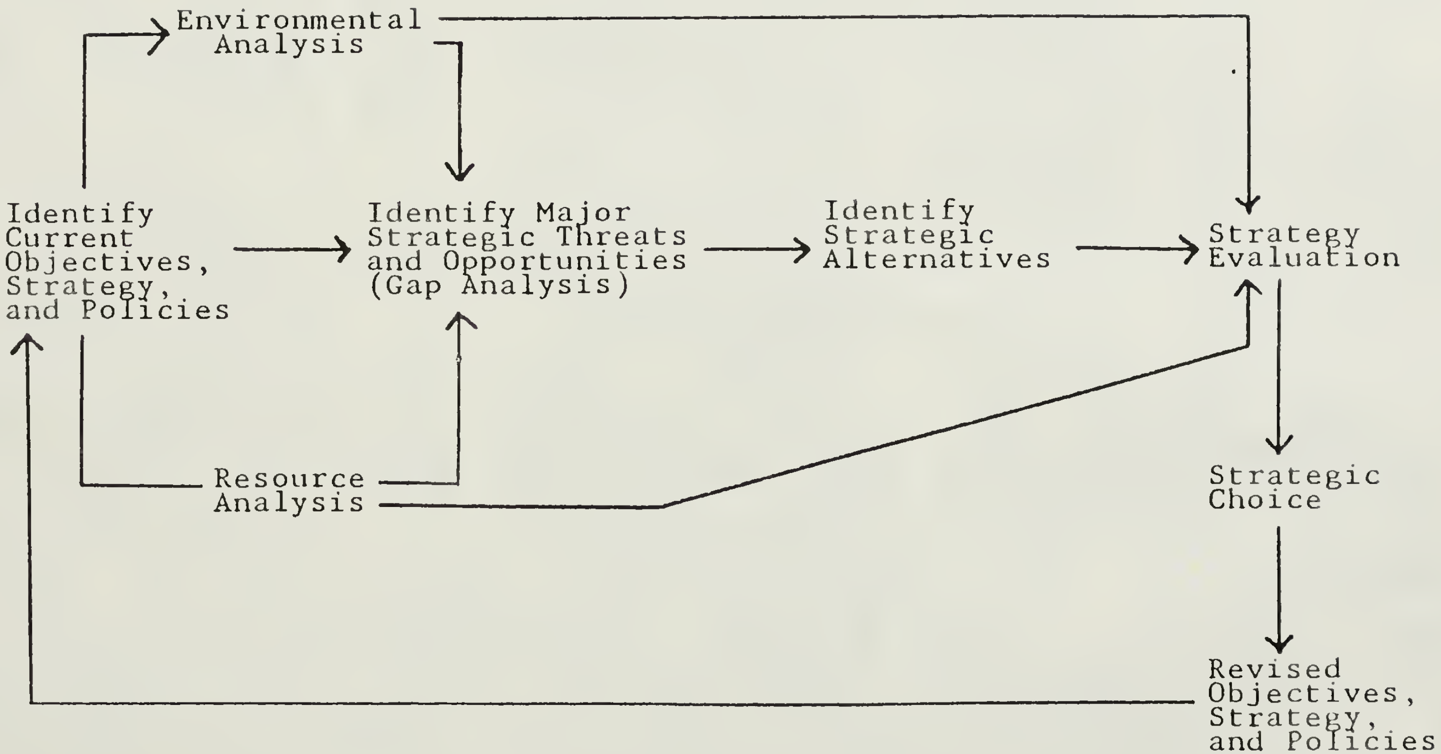
For example, at the program level, the PM must take as given certain policies and procedures mandated by higher levels when developing his strategy. These policies and procedures may eliminate options the PM would have otherwise considered in the development of his acquisition strategy.

Strategic planning, then, can be described as a process which results in a series of decisions. These decisions form the objectives and goals of the organization, shape the major policies, and allocate resources toward the attainment of these objectives, goals and policies. The process, ideally, is an inter-weaving of many issues and results in a strategy which is consistent, achieveable and understandable. The ultimate goal of strategic planning is to formulate, disseminate and implement a series of objectives, policies and resource allocations which will allow the organization to achieve its intended purpose. The planning process should result in specific end products (i.e., plans) which will serve as the basis for project direction and as a blueprint for project execution [Ref. 6:p. 109]. An organization without a strategy is like a ship without a rudder, going around in circles [Ref. 11:p. 37].

The actual process of developing strategic plans is as varied as the number of authors on the subject. A typical approach to strategy formulation is provided by Hofer and Schendeland [Ref. 10] which is outlined below and illustrated in Figure 2.3. They describe a series of seven steps in the formulation process. These steps are:

1. Strategy identification. An assessment of the organization's current strategy and strategic components.
2. Environmental analysis. The assessment of the organization's specific competitive and more general environments to identify the major opportunities and threats facing the organization.
3. Resource analysis. The assessment of the principal skills and resources available to close the strategic gaps identified in step 4.
4. Gap analysis. A comparison of the organization's objectives, strategy, and resources against the opportunities and threats in its environments to determine the extent of change required in the current strategy.
5. Strategic alternatives. Identify the strategic options upon which the strategy may be built.
6. Strategy evaluation. An evaluation of the strategic options in terms of the values and objectives of the shareholders, management, and other relevant power sources and stakeholders; the resources available; and the environmental opportunities and threats that exist in order to identify those that best satisfy all these demands.
7. Strategic choice. The selection of one or more of the strategic options for implementation. [Ref. 10:p. 47]

The actual mechanics of developing a strategy largely depend on the skill levels of the planners involved, the market position of the firm, the resources available, and the level at which the strategy is being devised. The corporate strategic planning literature focuses on describing the different types of strategies (e.g., growth, market, retrenchment, etc.), organizing for strategic planning, and the principles involved.


Environmental Analysis
Identify Current Objectives, Strategy, and Policies
Identify Major Strategic Threats and Opportunities (Gap Analysis)
Identify Strategic Alternatives
Strategy Evaluation
Resource Analysis
Strategic Choice
Revised Objectives, Strategy, and Policies

Source: Adapted from [Ref. 10:p. 48]

Figure 2.3 The Strategy Formulation Process.

Strategic decision-making involves subjective evaluations which requires the process to be tailored to the organization and the decision-maker involved. During the research effort, a cookbook type approach utilizing objective evaluation criteria was not found. Because of its subjective nature, strategy development can be described as an organizational process, in many ways inseparable from the structure, behavior and culture of the organization in which it takes place [Ref. 12:p. 97]. In the final analysis, the strategy is the conceptual glue that binds the diverse activities of a complex organization together [Ref. 13:p. 18].

C. DEFINITIONS

Acquisition planning, acquisition strategy and acquisition plans have been defined in a number of ways over the years and a clear consensus was not found in the major systems acquisition literature. Accordingly, for the purpose of this research effort, the following definitions have been adopted.

1. Acquisition Planning

Acquisition planning is the continuous process of analyzing technical, business and management aspects of the developing system. The planning process first leads to the generation of a comprehensive acquisition strategy. [Ref. 14:p. 8]

Acquisition planning can be viewed as analogous to planning in its broadest sense. It includes both strategic and operational planning considerations and results in the development of an acquisition strategy and ultimately in the development of operational (functional) plans (e.g., Test and Evaluation Master Plan).

2. Acquisition Strategy

The acquisition strategy is the conceptual basis of the Program Manager's overall plan for satisfying the mission need in the most effective, economical, and timely manner [Ref. 15:p. 34-1]. The strategy evolves through an iterative process which coincides with the development of the system. Initially broad in scope, it becomes increasingly more refined as the system approaches production and deployment.

The acquisition strategy is the conceptual framework upon which functional plans are based. It is the overall game plan for the acquisition and deals with broad concepts, objectives, and assumptions made in the planning process. The details of how these overall concepts are integrated into the proposed program are contained in the Acquisition Plan and in other functional plans.

3. Functional Plans

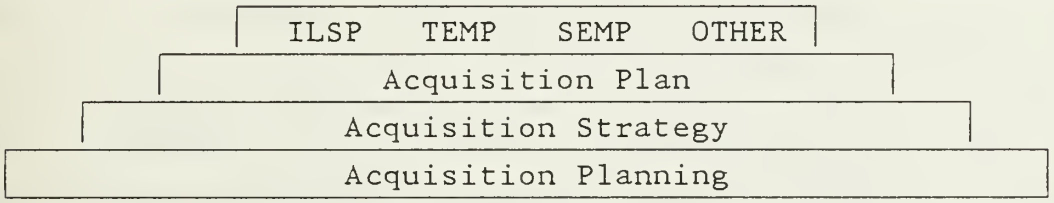
a. Acquisition Plan

The Acquisition Plan documents the decisions made in the development of the Acquisition Strategy. It integrates all of the technical, business, management, and other significant actions which must be completed during the course of the acquisition and becomes increasingly more detailed as the acquisition progresses. In addition to documenting the major objectives and policies established in the Acquisition Strategy, the Acquisition Plan summarizes and integrates information found in more detail in other functional/operational plans.

b. Other Functional Plans

Other functional/operational plans build upon the strategy and the Acquisition Plan. They formally document definitive actions which must be accomplished during the various phases of the acquisition cycle in particular functional areas. The plans must be specific with respect to near term goals, and must identify when actions on longer term goals and objectives must be definitized. In addition, they must be consistent with and support the objectives and policies found in the Acquisition Strategy and Acquisition Plan. In short, they constitute the detailed plans for implementing specific portions of the acquisition strategy. Examples of functional plans include the Test and Evaluation Master Plan (TEMP), and Integrated Logistics Support Plan (ILSP).

Given these definitions, program management in the major systems acquisition process could be categorized as a process where the program manager is continually planning, revising and updating his program's strategy and updating and definitizing his functional/operational plans. This building block process is depicted in Figure 2.4.



Key:	
ILSP	Integrated Logistics Support Plan
TEMP	Test and Evaluation Master Plan
SEMP	Systems Engineering Master Plan
Other	Other Functional Plans

Source: The Researcher

Figure 2.4 The Acquisition Planning Process.

D. EVOLUTION OF ACQUISITION STRATEGY

The concept of acquisition strategy first gained prominence in the major systems acquisition process during the 1970's. The Blue Ribbon Defense Panel (1970) and the Commission on Government Procurement (1972) both recognized a need for better procurement planning in their studies. During this same period, then Deputy Secretary of Defense Packard formulated planning guidance which ultimately was published as DoD Instruction 5000.1 in 1971. The need for better planning was reinforced in 1976 by OMB Circular A-109 and in various directives and instructions issued by the individual services.

The term acquisition strategy was generally used to describe the overall planning for a program although this was not a universally accepted convention. Emphasis on better planning in recent years has resulted in a number of research efforts in the acquisition strategy development and implementation area. In addition, the services have issued a number of directives and instructions designed to refine the strategy development process.

Over the last fifteen years, a number of studies have attempted to define and describe acquisition strategy development and implementation. One study, [Ref. 16], traced the evolution of acquisition strategy in the major systems acquisition process from the 1950's through the late 1970's. One of the conclusions reached by this study was that a program's acquisition strategy was the integrating mechanism which coordinated the widely dispersed activities in the acquisition process [Ref. 16:p. 129].

Other studies have analyzed individual elements of the acquisition strategy development and implementation process. Findings of these studies include methodologies to reduce the probability of cost growth [Ref. 17] and [Ref. 18], restructuring the planning and documentation process [Ref. 14], and planning for and managing competition in the implementation phase [Ref. 19] and [Ref. 20]. The result of these studies has been an increased awareness of the importance of strategic planning as a tool in the management and control of a major systems acquisition program.

E. SUMMARY

This chapter has provided an overview of the major systems acquisition process, a discussion of strategic planning and outlined the evolution of acquisition strategy. In addition, a number of terms were defined and described. In the researcher's view, development of an acquisition strategy in the major systems acquisition environment has many features similar to business level strategy development in the commercial sector. One such similarity is the need to incorporate the policies, procedures and strategy of higher levels when considering the options available to the PM or other business level strategy formulator.

Effective long range strategic planning in the major systems acquisition process results in successful programs. Failure to adequately apply the principles of strategic planning can result in a program which does not meet its performance requirements, is not delivered on time and costs significantly more than planned.

III. FORMULATING THE ACQUISITION STRATEGY: A THEORETICAL PERSPECTIVE

A. INTRODUCTION

There are many issues and factors that affect the formulation of an acquisition strategy. The business environment, congressional involvement and interest, emerging technologies, new initiatives, laws and regulations and a host of others. The program manager must consider all of these issues as well as make provisions for future issues and initiatives when he formulates his program's acquisition strategy.

The basic objective of the program manager is to field a system which will satisfy the assigned mission need, and be delivered on schedule and at a reasonable cost. How well he accomplishes this objective will, to a large degree, be determined by the effectiveness of his program's acquisition strategy.

In this chapter, the principal characteristics of an acquisition strategy will be identified and discussed. In addition, the major constraints and limitations faced by the PM during the acquisition strategy formulation process will be presented. This discussion will be from a theoretical perspective with the realities involved in the process deferred until the next chapter.

The information presented in this Chapter and in Chapter IV is the result of interviews conducted during the research effort and a review of available literature.

B. CHARACTERISTICS OF AN ACQUISITION STRATEGY

1. Responsive

The first, and possibly the most important, characteristic of an acquisition strategy is its responsiveness to the mission need for which the program was approved. The strategy must serve as the overall plan for satisfying the ultimate objectives of the program which are to meet an operational need, at a reasonable cost and in a timely manner. An acquisition strategy which does not adequately address the mission requirements imposed by the threat for which the program was initiated can never be successful.

In addition to being responsive to the approved mission need, the acquisition strategy must satisfy the concerns of many individuals and organizations within and external to the particular service involved. Examples include other services, the DoD, the OMB, the Congress and possibly the State Department if foreign sales are involved. These concerns could include funding profiles, initial operating capability (IOC) date, interfaces with other programs or existing systems, the degree of competition proposed, the use of warranties and possibly many others.

In order to be responsive to the needs of these organizations, the PM must be aware of what their requirements are. The PM must know what the objectives, priorities, and policies are in order for him to effectively formulate an acquisition strategy which will address their concerns. Failure of the PM to adequately address these concerns will result in an acquisition strategy which will require major revisions as it proceeds through the review process. These revisions will ultimately delay the program and confuse those individuals responsible for drafting functional strategies and plans.

In being responsive to higher level concerns the acquisition strategy cannot, however, address every possible issue. It also cannot address the level of detail that some higher level individuals may desire. The objective should be to identify their concerns and incorporate them into the acquisition strategy formulation process. A more detailed discussion will be contained in the functional plans.

2. Realistic

A second important characteristic of an acquisition strategy is that it must be realistic. The acquisition strategy must realistically address such issues as technical and cost risk, approved funding levels, directed concepts or inter/intraoperability requirements as well as any other constraints or limitations. For example, if competition throughout the development and production of the system is desired, adequate funding to accomplish this must be identified. Failure of the acquisition strategy to be realistic will cause severe problems in the implementation phase and will probably result in program objectives not being achieved.

A second element to be considered is the stage of the acquisition process that the program is currently in. The level and amount of detail expected in the acquisition strategy should be commensurate with the stage of the acquisition involved. At program initiation, for example, many of the individual details have not yet been developed. Accordingly, little information is available on which to base decisions. As the program progresses toward production and deployment, greater detail can be expected. Expecting large amounts of detail at program initiation is unrealistic because it would cause premature decisions to be made which would unnecessarily restrict future options. For example, at program initiation the PM cannot realistically be expected to identify in great detail the specific contract type to be used during the production phase. Requiring him to do so would unnecessarily restrict the options available well before information needed to made intelligent decisions is available.

3. Comprehensive and Complex

The acquisition strategy must address the major issues which will impact on the success of the program. It must, however, consider the program as a whole and not get bogged down in too much detail more suited to functional plans. This is especially true with the acquisition strategy developed at program initiation.

In achieving the goal of being comprehensive, many complex issues will need to be resolved. The strategy, however, cannot possibly cover every issue which will arise in the course of the acquisition. The objective should be to identify the pertinent issues and how they relate to each other, not necessarily provide all of the answers. The strategy should set the stage for integrating the multitude of complex issues which will be addressed in greater detail in the functional plans. The actual resolution of problem areas and the details of how the issues will be integrated should be covered in the operational/functional plans. In order for the functional plans to adequately address these issues, however, the general framework, policies, and priorities must be established in the acquisition strategy. In this regard, it is particularly important for the acquisition strategy to establish priorities among the many acquisition objectives.

4. Integrated and Internally Consistent

Another important characteristic, and one frequently overlooked, is that the acquisition strategy must integrate and interrelate dozens of issues. In doing so, the strategy must be consistent in its treatment of issues and must not provide conflicting direction. For example, if breakout of spare parts during the deployment phase is desired, adequate provision must be made in the design phase for rights to the technical data required to achieve this goal. One of the most difficult tasks in this respect is the resolution of conflicts between objectives and coping with conflicting pressures. Each objective in the acquisition strategy should be mutually supportive, or at the very least, not be in conflict with each other. Establishing priorities early in the program assists in this regard.

In order for the acquisition strategy to achieve internal consistency, the same assumptions must be used throughout the formulation process. In addition, the same assumptions and priorities used in developing the acquisition strategy must be used in developing functional strategies and plans. If this is not accomplished, individual functional plans will contradict each other and lead to unnecessary confusion during the implementation phase.

5. Flexible

The acquisition strategy must be flexible and thus able to respond to changes in economic, political, technological and other foreseeable as well as unpredictable changes in program emphasis and direction. This flexibility, however, should not cause the strategy to be so general that it negates its value as a planning and management tool. Unexpected changes to the funding profile, delivery dates, test schedule or unforseen technical difficulties could adversely affect the entire program. Accordingly, contingent strategies must be developed and incorporated as part of the acquisition strategy so that the effects of changes in program direction can be mitigated.

In the early stages of the acquisition, the PM needs to keep as many options open as possible and recognize that any decision made impacts on the types of alternatives that will be available later. The range of options left open helps determine the amount of flexibility available to the PM in the latter stages of the acquisition.

6. A Formal Agreement

The acquisition strategy should serve as a formal agreement between the PM and higher authorities. This formal agreement would identify the objectives of the program, the associated priorities, and the key management concepts that will be utilized in the planning and execution of the program. This type of arrangement serves to reduce the number of changes made in program direction and helps to ward off those who would provide direction contrary to the approved strategy.

In the opinion of one author, securing an early commitment from senior officals in the DoD and from congressional authorities is essential for a major program start [Ref. 17:p. 53]. One individual interviewed during the course of the research indicated that the acquisition strategy should serve as a consensus of opinion on how the program should be managed and executed. This consensus would then result in a formal agreement between the PM and his superiors. Other individuals interviewed supported this concept and indicated that it would lead to more program stability by discouraging those individuals who would normally "tinker" with the program. Another benefit cited was opportunity to establish clear objectives and goals by receiving a mandate from the appropriate decision authority. In other words, it would establish clear lines of authority and provide formal approval of the management concepts, policies, objectives and priorities for the program.

C. CONSTRAINTS AND LIMITATIONS

1. Formal Program Planning Guidance

A PM receives formal program planning guidance in a number of ways and from many individuals and organizations. The amount and kinds of guidance provided depends on the nature of the program, the interest that various individuals and organizations have in the program, the projected cost of the program, and the level at which program decisions are approved. It has not been uncommon in the past for a PM to receive specific planning guidance from the Congress or from high level Executive Branch officials. This guidance has taken the form of directed concepts and sources, restrictions on the use of various contract types, competition goals, test and evaluation procedures, warranty requirements, and a host of others. All of these actions impact on the options available to the PM in the development of his acquisition strategy.

One of the important documents in the early phases of a program is the Program Manager's Charter. The Charter defines the mission of the program, establishes initial funding levels, assigns the PM as well as establishing any other objectives or limitations for the program. In many instances, the charter does not sufficiently detail the strategy, objectives and priorities of higher levels. This lack of initial guidance causes the PM to, at times, incorrectly assume that certain options are available when in fact they will not be approved.

In the view of program office personnel interviewed in the course of this research, it is extremely important that higher level strategies, objectives and priorities be clearly articulated at the initiation of a program. If this is not accomplished, the PM will consider strategic alternatives which could subsequently be rejected.

In the view of many of those interviewed, one of the major concerns of the PM at program initiation is dealing with the number of uncertainties facing his program. One area of concern frequently cited was the amount of program guidance provided during the life of a program which could have, and probably should have been, provided at program initiation. This unnecessary delay results in a number of changes in program direction and creates confusion in the program office.

Another problem frequently cited during the interviews was the lack of flexibility built into the acquisition strategy formulation process. Specifically, the vast number of directives, instructions, and policies which a PM must consider, understand and comply with severely limit his flexibility and the number of strategy options available to him. The end result is that a PM has a difficult time determining what the overall policies, priorities, and strategies are.

2. Informal Program Planning Guidance

Informal program guidance can come in many forms. Suggestions by higher level officials, congressional committees and others serve to limit the options available to the PM. Additional informal guidance comes from other program managers who have program management experience and from individuals who interpret and evaluate compliance with the policies and procedures of higher levels. The PM also receives informal guidance during the formal program review process. During the various reviews, guidance may be provided which could limit the flexability and options available to the PM. This guidance may not, however, be reduced to writing as a change to or an addition to previous guidance.

The principal danger with informal guidance is that it may not be consistent with formal planning guidance received or may unnecessarily limit the options available to the PM. In addition, since many individuals involved in the review process are concerned with a limited portion of the overall strategy (e.g., funding profile), they may not have an appreciation for what impact their guidance has on the overall program or on other program elements. This is particularly true in the early stages of the acquisition when numerous alternatives are available.

3. Economic and Political Pressures

The increasing costs of new systems leads to pressure to keep program costs down. This pressure affects the types of options available to the PM in the development of his program's acquisition strategy. If a true Circular A-109 approach is contemplated, many short term development contracts would be used in the concept exploration phase of the acquisition. This in turn would require a higher level of front end funding than other approaches. If the PM is under pressure to keep front end development funding low, he may not be able to follow a true A-109 approach.

In addition to economic pressures, the PM must recognize and appreciate the political process and its associated pressures on his program. During the budget review process, various congressional committees will investigate the missions, funding levels and other aspects of the program. The interests of the congressional committees may not, necessarily, match those of the PM or the DoD. Chapter IV provides expanded treatment of the effects of political pressures on acquisition strategy development.

4. Technical Considerations

The accelerating rate of change in both military and industrial technology makes it particularly difficult to predict the future in detail [Ref. 16:p. 20]. Often, technical considerations become the overriding concern of personnel responsible for managing and reviewing program progress. The PM's objective should be to strike a balance between technical requirements, program funding, schedule considerations as well as many other issues.

The identification and categorization of all of the technical issues which will need to be resolved during the life of the program cannot possibly be addressed in the early stages of the program. The objective at program initiation should be to identify the types of issues which need to be addressed, the methodology to be used to address them and the stage of the acquisition process when they must be considered. In the acquisition objectives developed at program initiation, the PM should identify the major technical issues to be resolved during the development and production phases. The technical complexity, degree of risk involved, and the impact of critical technical setbacks should also be identified.

5. Schedule Requirements

There is constant pressure to reduce the time it takes to acquire and field new systems. If an Initial Operating Capability (IOC) date has been provided in the Program Charter, the strategy options available to the PM become restricted. This emphasis on reducing acquisition time is contained in DoD Directive 5000.1 which lists a primary goal of the acquisition strategy as minimizing the time it takes to acquire material and facilities to satisfy military needs [Ref. 1:p. 6].

Other scheduling requirements have an impact on the development of a programs acquisition strategy. These include the scheduling of test and evaluation activities, the programming of activities involving different fiscal years or types of funds (e.g., research and development versus production funds), and providing for formal program reviews.

If a program's acquisition strategy is dominated by scheduling concerns, many strategy options will be eliminated from consideration. For example, if an inflexible IOC date is provided, the PM is required to force fit the development and production phases of the program into this schedule despite any associated negative implications.

6. Resource Limitations

One of the most important factors in determining the success of a program is the amount and kinds of resources dedicated to the program. To be successful, a PM needs capable individuals in the program office, a minimum level of funding as well as other resources. Examples of other critical resources include access to Government laboratories and test facilities, support from higher level headquarters organizations, engineering support, the use of Government furnished equipment and material if required, and the availability of required raw material and production skills.

Close attention is normally given to program funding because the non-availability of funds usually requires the reduction of planned efforts in one phase and the rescheduling of the task for a later date [Ref. 19:pp. 3-5]. Other resources, however, cannot be ignored or overshadowed by program funding concerns.

7. Risk Management

One of the most difficult aspects of program planning is the identification, categorization and quantification of program risks. There are many risk areas which need to be considered. Examples include cost, schedule, development, the transition from development to production, technological, and political. One author notes that maintaining a proper risk sharing relationship between the Government and its contractors is one of the major components of a sound acquisition strategy [Ref. 21:p. 37].

In developing the acquisition strategy, the PM should identify those risk areas which could have an adverse impact on the success of the program. By identifying known and suspected risks early, the PM and functional planners can plan for and devote resources towards reducing these risks. By developing contingency strategies, the PM might be able to mitigate the impact that these risks have on the success of the program.

D. SUMMARY

This chapter has provided a discussion of the major characteristics of an acquisition strategy and those constraints and limitations which must be considered in the acquisition strategy formulation process.

The acquisition strategy formulation process is complex and influenced by many factors outside the control of the PM. One key to the process is the identification and categorization of those issues which need to be considered, evaluated, reconciled and integrated so as to reduce the degree of uncertainty and ensure program success.

A second key to the process is the early identification of higher level strategies, objectives, priorities, and policies. This is critical to the successful development of an acquisition strategy at program initiation.

IV. THE REALITIES OF ACQUISITION STRATEGY DEVELOPMENT

A. INTRODUCTION

As discussed in Chapter II, a program's acquisition strategy is the broad conceptual framework upon which functional strategies and plans are developed. There appears to be a lack of clear direction, however, in the actual development of program acquisition strategies. This uncertainty, in the view of many individuals interviewed, is partly a result of incomplete or vague guidance provided in various program planning documents. In addition, uncertainties in the political process have a significant effect on program management and planning.

This chapter will identify and discuss some of the problems and issues encountered in the development of program acquisition strategies and the uncertainties that currently exist in the view of a number of program office personnel.

B. THE PROGRAM DOCUMENTATION PROCESS

Development of an acquisition strategy for each program is mandated by OMB Circular A-109 which requires that agencies tailor an acquisition strategy for each program as soon as the agency decides to solicit alternative system design concepts [Ref. 2:p. 5]. Circular A-109 does not provide a definition of acquisition strategy, but does provide a listing of items which could typically be included in an acquisition strategy. These items include:

1. Use of the contracting process as an important tool in the acquisition program;
2. Scheduling of essential elements of the acquisition process;

3. Demonstration, test, and evaluation criteria;
4. Content of solicitations for proposals;
5. Decisions on whom to solicit;
6. Methods for obtaining and sustaining competition;
7. Guidelines for the evaluation and acceptance or rejection of proposals;
8. Goals for design-to-cost;
9. Methods for projecting life cycle costs;
10. Use of data rights;
11. Use of warranties;
12. Methods for analyzing and evaluating contractor and Government risks;
13. Need for developing contractor incentives;
14. Selection of the type of contract best suited for each stage in the acquisition process; and
15. Administration of contracts. [Ref. 2:p. 5]

DoD Directive 5000.1 Major System Acquisitions and DoD Instruction 5000.2 Major System Acquisition Procedures were revised to implement the policies contained in Circular A-109 and to provide additional guidance. The current version of DoD Directive 5000.1 (1982) requires that an acquisition strategy be developed for each major system and provides details on the incorporation of the strategy in various program documents. The specific requirements and documents involved include:

1. Justification For Major Systems New Start (JMSNS). Requires a summary of the salient elements of the proposed acquisition strategy, such as program structure, competition, and contracting [Ref. 4:p. 3-1].
2. Systems Concept Paper and Decision Coordinating Paper. These papers require a discussion of the general strategy for the entire program, and a detailed strategy for proceeding to the next milestone. In addition, program structure, competition

and contracting for all phases must be addressed. The papers must outline production planning to ensure an industrial base response that will support efficient manufacture and provide surge capacity, when appropriate. At milestone II, the PM must discuss cost control and verify that future costs and schedule are defined in detail and are credible. He must also indicate those DoD Directives, DoD Instructions, and Management principles which will not be applied to the proposed system. [Ref. 4:p. 4-1]

3. Integrated Program Summary. Requires a description of the current strategy to acquire and deploy the system to satisfy the mission need [Ref. 4:p. 5-2].

In addition to the requirements imposed by the DoD and higher levels, the individual services and their subordinate organizations have imposed additional requirements. These requirements include expanded coverage of certain topics and a more detailed discussion of selected issues.

Each of the services have issued directives and instructions which implement and expand upon the requirements established by the DoD and higher levels. These implementing documents establish many service specific requirements or procedures, detail the in-service review and approval process, and expand upon the requirements for and the content of acquisition strategies and functional plans.

In addition to the directives and instructions issued by the OMB, the DoD and the individual services, the Federal Acquisition Regulation (FAR) [Ref. 15] provides guidance on the preparation of acquisition strategies and acquisition plans. The FAR, in Part 34, requires a PM to develop an acquisition strategy tailored to the particular major system involved. It goes on to state that the strategy shall qualify as the acquisition plan if written in accordance with the requirements of Subpart 7.1 (Acquisition Plans) [Ref. 15:p. 34-1]. Subpart 7.1 provides detailed guidance on the preparation of acquisition plans and lists a number of issues which must be addressed. The issues range from life-cycle cost considerations to the selection of contract type for each contract contemplated. Appendix C provides a listing of these requirements.

The FAR, in Part 34, describes the acquisition strategy as the conceptual basis of the program manager's overall plan [Ref. 15:p. 34-1]. In Subpart 7.1, however, the acquisition strategy can qualify as the acquisition plan if written in sufficient detail. If an acquisition strategy can qualify as an acquisition plan, the distinction made between broad concepts and detailed plans becomes unclear. The acquisition strategy, if written following the guidelines for the preparation of acquisition plans, may become too detailed and not useful as an overall program planning document. In other words, a PM may become so overwhelmed by the many details of program planning that he may loose sight of the broad perspective. If this occurs, many strategy alternatives may be erroneously eliminated as a result of decisions made on individual details. The end result would be an undue emphasis on detailed functional plans before the concepts on which these plans should be based are formulated.

A second document which contributes to the difficulty in distinguishing between acquisition strategies and acquisition plans is the DoD FAR Supplement. In Subpart 7.1 it states that:

> The program manager, or other official responsible for the program, has (the) overall responsibility for requisite acquisition planning as (he does) for all other planning for the program. The contracting officer or the contracting officer's designee shall support this official by preparing and maintaining the acquisition plan. [Ref. 22:p. 7.1-1]

The language used implies that the acquisition plan falls primarily in the domain of the contracting officer. In doing so, the implication is that the acquisition plan could more appropriately be titled the Contracting Plan. Although the contracting officer is involved in many aspects of program planning, he cannot be expected to have the broad view that the PM is required to have.

The responsibility for preparing the acquisition strategy, because of its broad and pervasive nature, should not be delegated below the PM level. Since it is the overall game plan and the basis for all other planning, it should be developed by the PM with assistance from functional specialists. One of the functional specialists involved is the contracting officer.

C. THE PROGRAM REVIEW PROCESS

During the program review process, the program's acquisition strategy is scrutinized by many individuals and organizations who are interested in different facets of the acquisition. For example, organizations interested in the logistic supportability of the proposed system review the acquisition strategy to ensure that logistic issues are adequately addressed and conform to established policies and thresholds. In other words, the PM must satisfy many organizations and individuals whose interests may be narrow in scope and who may not be able to appreciate the overall strategy for the program. As a result, there are many individuals who can say "no" to a particular portion of the acquisition strategy. There are few individuals, however, who can "yes" to the overall strategy.

A PM faces many formal, as well as informal, reviews during the life of the program. Formal major system program reviews are normally conducted by the Defense Systems

Acquisition Review Council (DSARC) at Milestones I, II and III (if a SECDEF decision is required). Before reaching this review level, however, virtually every level in the PM's chain of command conducts a formal review of the program. These levels could include System/Commodity Commands and Service level reviews (e.g., Department of the Navy Systems Acquisition Review Council (DNSARC)).

In addition to these formal reviews, a number of informal reviews take place. These include program status briefings, budget reviews, functional plan reviews, as well as any others deemed appropriate. This layering of formal and informal reviews stretches out the decision-making process and consumes a major portion of the PMs time and effort. One individual interviewed estimated that the typical PM spends 75% of his time preparing for or attending program reviews and briefings. In addition to the PMs time and effort, a significant portion of the resources available in the program office are devoted to these reviews. The impact is that more resources may be devoted to preparing for and attending reviews and briefings, defending program decisions, and responding to queries from higher levels than are devoted to developing and implementing strategic and operational plans.

One of the problems faced by a PM in the development of his acquisition strategy at program initiation is the structure and timing of the review process. The first acquisition strategy prepared for the program is contained in the Justification for Major Systems New Start (JMSNS). Since the PM is not normally assigned until after the program has been approved (i.e., JMSNS approval), he probably did not participate in the development of the JMSNS or in the associated decision-making process. During the development, review and approval of the JMSNS, many decisions will be made which will impact on the number and types of alternatives which will be available to the PM.

The next time the acquisition strategy is formally reviewed by the DSARC is at the Milestone I review. In the interim, the PM has developed, obtained approval of and began implementing his acquisition strategy during which a period of months or years may have elapsed. Although this strategy has been reviewed and approved at some intermediate level, the ultimate review body (the DSARC or service equivalent) and the ultimate decision-maker (the SECDEF or Service Secretary) may not be fully aware of the contents of the acquisition strategy.

If a portion of the acquisition strategy is disapproved at the Milestone I review, a major change in program direction and major revisions to the acquisition strategy may be required. An example of this was provided by an individual interviewed during the research. He related a situation in which a program's acquisition strategy required major revisions as a result of significant reductions in the funding available to the program. Since the Concept Exploration Phase has been virtually completed by this point, changes to the acquisition strategy may require that certain events in the Phase be redone. The revisions could also be so dramatic that the entire acquisition strategy might have to be reformulated from scratch. This in turn would also require major revisions to the functional strategies and plans.

In the view of the majority of individuals interviewed, the PM is placed in a difficult position as a result of the review and approval process. This is particularly true if the PM was not part of the decision-making process early in the life of the program. Those expressing this opinion felt that the overall framework for the program had already been developed before the PM had the opportunity to develop his acquisition strategy. As a result, they questioned the viability and validity of having the PM develop the program's acquisition strategy. In addition, they viewed the PM's role as one of implementing the overall strategy developed by higher levels and developing and implementing strategies to achieve specific objectives and goals. In this case, the PM would become a business level strategy formulator as discussed in Chapter II. This arrangement, in their opinion, would more accurately reflect the duties and responsibilities of the individuals concerned and the decision authority available to each.

D. THE POLITICAL PROCESS

The development of an acquisition strategy at program initiation, and the maintenance of it thereafter, can be significantly influenced by political concerns. This influence can be the result of hearings held by the Congress, guidance provided in Defense Authorization or Appropriation Bills, or initiatives taken by Congressional Committees or officials in the Executive Branch. In addition, the acquisition strategy may be affected by other political considerations. These could include: concern about the size, scope, or cost of the program; the environmental impact of the proposed technology; the general political climate relative to the overall level of defense expenditures; the state of the economy; the condition and location of potential prime and subcontractors; the concerns of special interest groups; proposed basing schemes; and possibly many others. It has not been uncommon in the past for program decisions to be influenced more by the political process than by efficiency or effectiveness concerns. The B-1 Bomber and the MX Missile programs are examples of the impact that the political process can have [Ref. 23] and [Ref. 24].

To be successful, the PM must appreciate the impact that the political process can have on his program. He must be able to assess the current political environment as well as attempt to predict what it will be like in the future. He must be able to gauge the political ramifications of each strategy option considered as well the likelihood of its acceptance. If a PM does not appreciate and make allowances for political considerations, significant setbacks in the program are likely.

E. THE MAJOR SYSTEMS PLANNING ENVIRONMENT

One of the principal requirements for effective strategic planning, according to many authors, is the need for a long range planning environment within an organization. This planning environment encourages long range planning as a means of attaining organizational objectives.

A majority of the individuals interviewed asserted that in the major systems acquisition process, there is a tendency to concentrate on near term events at the expense of long range considerations. The need for better long range planning was reinforced in an announcement by Secretary of Defense Weinberger on 30 April 1981. In a charter of acquisition principles designed to reduce the costs of systems and improve the acquisition process, he stated that in order for us to improve program stability, we must improve our long range planning [Ref. 25:p. 13]. This statement by the senior official in the DoD is an example of the concern over the quality of our long range planning. Acquisition strategy development is, by definition, concerned with long range planning.

In order for the development of an acquisition strategy to be successful, especially at program initiation, the PM must have the support of all levels in the DoD. Adequate resources must be made available, the strategy and objectives of higher levels must be clearly articulated, and emphasis must be placed on the importance of the acquisition strategy. This emphasis would translate into better up front planning and contribute to the success of the program. If emphasis is not placed on long range planning, the development and maintenance of an acquisition strategy will become an meaningless exercise.

F. SUMMARY

This chapter has identified and discussed some of the realities involved in the acquisition strategy formulation process. The program documentation and review process and political concerns impact heavily on the options available to the PM in the development of his acquisition strategy. The combination of these concerns has resulted in a large degree of uncertainty and ineffectiveness at the PM level and has lead to inefficiencies in major systems acquisition process.

A second major issue presented was the need for a long range planning environment (or culture) in the major systems acquisition process. In order for the acquisition strategy to be an effective management tool, appropriate emphasis must be placed on long-range planning and its contribution to program success.

A question raised by the majority of those individuals interviewed was the validity of having the PM develop the program's acquisition strategy. Most felt that it would be more appropriate for the PM to develop strategies and plans for implementing the overall strategy and objectives of higher levels. They suggested that this arrangement would more accurately reflect the duties and responsibilities of the individuals concerned and the decision authority available to each.

V. A METHODOLOGY FOR ACQUISITION STRATEGY DEVELOPMENT AT PROGRAM INITIATION

A. GENERAL

As discussed in previous chapters, there is a recognized need for better long range planning in the major systems acquisition process. This need is particularly critical at the initiation of a program. The vehicle used to effect this long range planning is the development of an acquisition strategy for the program.

The development of a program's acquisition strategy at program initiation is a long range planning process which will impact on virtually every event in the course of the acquisition. Decisions made early in the process will determine the direction the program will take, which alternatives will be pursued, and which options will be eliminated from consideration. Because of the uncertainties inherent in the process, the PM can never expect to have perfect knowledge of all combinations of feasible solutions and a clear understanding of the consequences of each decision made.

The answer to this planning dilemma, in part, is to dedicate appropriate resources to the formulation and implementation of the program's acquisition strategy. Examples include assigning the prospective PM during the formulation of the JMSNS and the assignment of capable individuals to the program office. The objective of the PM should be to carefully, and as completely as possible, plan for the development, test, production, and support of the proposed system as early in the life of the program as possible.

The purpose of this chapter is to propose a methodology for the formulation of an acquisition strategy at program initiation. This methodology is based on the concepts described in Chapters II and III, and the realities involved in the process discussed in Chapter IV.

B. OVERVIEW OF THE PROPOSED METHODOLOGY

The development of an acquisition strategy is a problem solving and resource allocation process which, if properly conducted, will result in an acquisition strategy which has the characteristics outlined in Chapter III. The methodology proposed is based on answering the five questions normally used in the planning or decision-making process. These questions are:

1. What is to be accomplished?
2. Why must it be accomplished?
3. Who is responsible for accomplishing it?
4. When is the requirement to be satisfied?
5. How is the requirement to be satisfied?

The acquisition strategy, if properly developed, will answer these questions. In particular, the acquisition strategy will answer the question of how the need will be satisfied (in strategy terms, not in hardware solution terms).

During the acquisition strategy development process, the PM needs to be keenly aware of what strategy level he is operating at when considering a given option. As discussed in Chapter II, there are three major levels of strategy formulation. These levels are corporate level, business level, and functional level. The level at which a given strategy option is considered is important because it determines the degree of latitude and flexibility available to the decision-maker. For example, if a PM can consider whether or not competition at the prime contractor level will be pursued, he is operating at the corporate level. If, on the other hand, he has been told that he will have competition, then he is operating at the business level.

Continuing the example cited above, if the PM was told that he would have competition and that he would use the Leader-Follower method, then he would be operating at the functional level. If he was provided with specific details of how to effect this competition, he would be operating at a level below the functional level. This example could be expanded to include any number of possible strategy options.

It is important to consider the level that the PM is operating at because it impacts on the number, variety and nature of options available to him. This is true not only for the option under consideration, but also for all other strategy options. This is because a decision made in one area impacts on the number of options available in all other areas.

The methodology presented in the following sections sequentially considers the questions posed at the begining of this section while also considering the strategy level the PM is operating at.

C. ANSWERING THE WHO, WHAT, WHEN AND WHY QUESTIONS

The objective during this step is to identify what is to be accomplished and why, when it must be completed and who is responsible. This first step is illustrated in Figure 5.1.

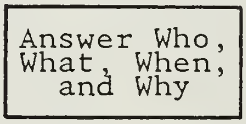


Figure 5.1 Assessing Requirements.

The answers to some of these questions are outlined in the Justification for Major Systems New Start (JMSNS) and in the Program Manager's Charter. The guidelines normally provided in these two documents are outlined below.

The Justification for Major Systems New Start provides the following program guidance:

1. The mission need;
2. The projected threat and the shortfalls of existing systems in meeting this threat;
3. The timing of the need and the general priority of the system;
4. Known alternatives which will be considered during the Concept Exploration Phase;
5. The maturity of the technology which is being pursued for known alternatives and the remaining risk involved;
6. The proposed level of funding;
7. Any known constraints (e.g., standardization, interoperability, critical materials, or industrial base considerations); and
8. A summary of the salient elements of the acquisition strategy including the proposed program structure, competition, and contracting. [Ref. 4:p. 3-1]

The Program Manager's Charter expands upon the guidance provided in the JMSNS and further develops the type of management approach to be utilized. Although each decision-authority determines the content of a particular Program Manager's Charter, it typically provides the guidance outlined below.

1. Designates the PM;
2. Assigns the mission to be accomplished;
3. Specifies the type of program organization to be used (e.g., project versus matrix);

4. Defines the authority and responsibilities of the PM; and
5. Designates any supporting or participating organizations.

Since satisfying the mission need is the ultimate objective of the program, it is the starting point in the process and determines what is to be accomplished. The projected threat, and the shortfalls in existing systems in meeting this threat, answers why the program is required.

The number of alternatives available to the PM is significantly influenced by the manner in which the mission need has been identified. For example, if the proposed system is to interface with an existing system, the design concepts and number of competitive sources which can respond to the need may be limited. The general policy of stating the requirement in mission terms, not in equipment terms, is contained in OMB Circular A-109 [Ref. 2:p. 3].

The challenge facing the PM is to state the need in a manner which does not unnecessarily restrict the number of options available to him. If the mission need provided by the JMSNS was stated in equipment terms or in some other restrictive manner, the PM may not be able to consider corporate level strategy options. Instead, he will be tied to business level strategy options which implement the directed corporate level strategy.

The JMSNS also provides information concerning the timing of the need and therefore may answer the question of when the system is required. In addition, the Program Manager's Charter may elaborate on the timing of the need by specifying the Initial Operating Capability (IOC) date. The timing of the requirement has a significant impact on the kinds of options available to the PM. For example, if a firm IOC date has been established, the PM may be required to eliminate certain development or production options from consideration. In this case, the PM is operating at a business or functional strategy level and cannot consider options which will not meet the required IOC. The end result would be a scheduling process where events are scheduled based on the IOC date, not on the time it should realistically take for each event. These pressures could lead to concurrent development and production even though there may be a high level of risk involved. The very process of planning for concurrency, however, also becomes part of the PM's strategy at the business and functional levels.

As noted above, the Program Manager's Charter designates the PM and therefore answers the question of who is responsible for the success of the program. The Charter also defines his authority and relationship to higher level and supporting organizations.

D. DETERMINING HOW THE NEED WILL BE SATISFIED

In determining how the need will be satisfied, the PM is determining what the components of his acquisition strategy will be. Again, the PM needs to consider what strategy level he is operating at and what strategy alternatives are available to him. In order to determine how the need will be satisfied, the PM first needs to consider what planning guidance he has received from higher levels as well as other external factors which are discussed below. This step is illustrated in Figure 5.2.

1. Evaluation of External Factors

Before attempting to determine how he plans to satisfy the mission need, a PM first needs to determine what external factors need to be considered. In order to gather the necessary information, the PM will need to investigate a number of sources. These sources include:

a. Congressional hearings and legislation;

b. Higher level Executive Branch documents (e.g., Executive Orders, OMB Circulars);

c. The Federal Acquisition Regulation;

d. The DoD FAR Supplement;

e. Applicable directives, instructions, and policy letters issued by the DoD, and other organizations in the PM's chain of command; and

f. Any specific program planning documents (e.g., JMSNS, Program Manager's Charter).

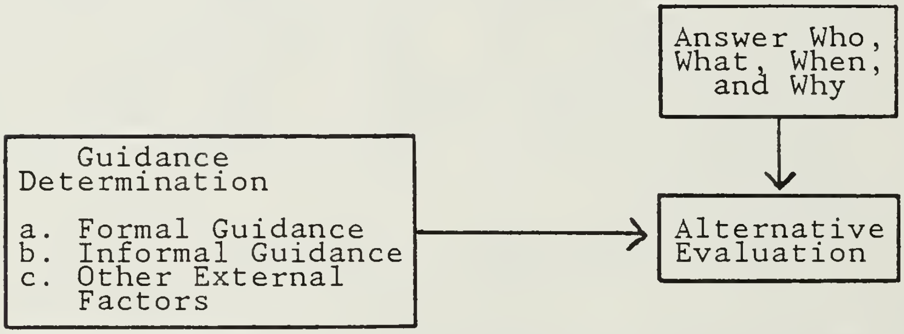


Figure 5.2 Guidance Determination.

In addition to these formal sources of information, the PM must be sensitive to informal guidance received and the overall political climate. These influences were discussed in Chapters III and IV.

The types of direction provided may include mandated competition goals, directed sources or concepts, small business concerns, warranty provisions, and the type of contracts to be utilized. The PM's objective should be to identify all of the specific details of how the acquisition will be accomplished which have been mandated by higher levels. The PM must consider these details as constraints and limitations which must be considered and complied with in the development of his acquisition strategy. The only exception to this would be where the PM receives a waiver of the requirement from the appropriate decision authority.

The problem facing the PM is the assimilation, integration, and implementation of the planning guidance received. One of the most difficult tasks in this regard is ascertaining what are the overall strategy, policies, objectives, and priorities. This will also determine at what strategy level the PM is operating. These items are addressed, in varying levels of detail, in each of the documents cited previously. The fragmentation resulting from this myriad of documents creates a large amount of uncertainty at the program level which, in turn, makes the assessment of the overall environmental factors which need to be considered a long, involved, and complex process.

The degree to which the PM formulates his acquisition strategy is a function of how much direction he has received. The more direction that he receives, the less latitude there is available. The types and amount of guidance received by the PM determines whether he develops the program's acquisition strategy or whether he implements the strategy directed by higher levels.

As discussed in Chapter IV, the majority of those interviewed believed that the number of constraints and limitations placed on the PM generally result in a directed strategy. Consequently, by the time the PM incorporates all of the guidance received there are very few strategy options available. If this is the case, the answer to how the acquisition will be accomplished has been determined. The difficult task left to the PM is to resolve any conflicts and to propose, defend, and implement this acquisition strategy.

Other external factors which could impact on the number of options available to the PM include the stability of the technology involved, the number of prospective sources, and the general condition of the industrial base. These factors can have a significant influence on the strategy options available to the PM. For example, if the program involves the use of production processes which are unique to one firm, there are few competitive options available to the PM. The limited availability of a critical raw material would be another example of an external factor which could severely limit the options available to the PM.

2. Identification and Evaluation of Strategic Alternatives

Once a PM has identified all of the external factors which need to be considered, the next step is to identify and evaluate all of the strategic alternatives available. This step is illustrated in Figure 5.3. The identification and evaluation of strategic alternatives is a three step process and is outlined below.

The first step is to evaluate the impact of the formal and informal planning guidance and other external factors previously identified. The result of this evaluation will be a listing of directed concepts, sources, procedures, policies, objectives and priorities. This step is of critical importance since it determines the range of options available to the PM and the strategy level at which he is operating. The requirements placed by higher levels can be categorized as either hard or soft. Hard requirements are those which must be complied with and a waiver cannot be expected. Soft requirements, on the other hand, are those which are desired but also can be waived if they will have an adverse impact on the program.

The second step is to identify as many strategic alternatives as possible. This listing of strategic alternatives should not be constrained by the results of step one. The purpose is to identify as many alternatives as

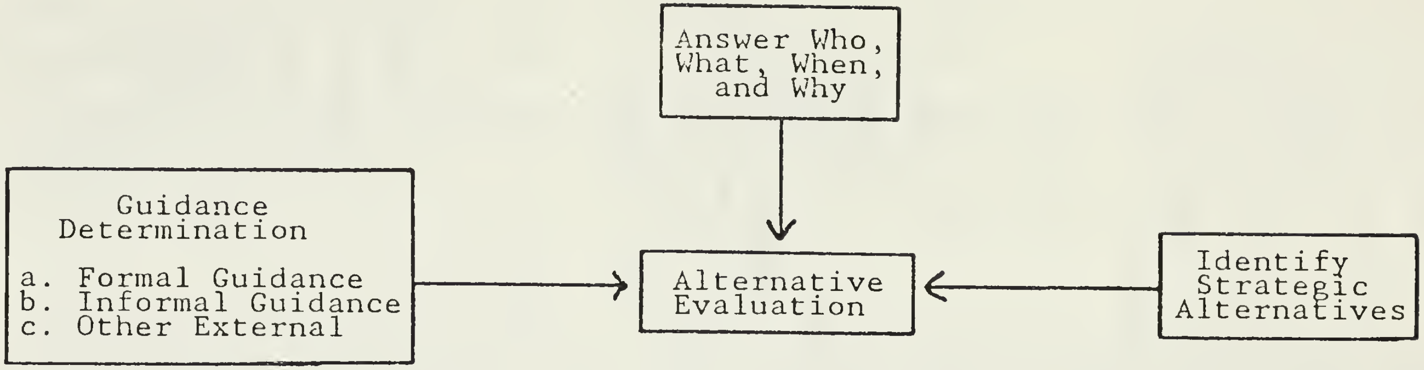


Figure 5.3 Evaluation of Alternatives.

possible which could be pursued if the PM was not constrained in the development of his acquisition strategy.

The third step is to compare the guidance identified in step one to the strategic alternatives developed in step two. The result of this comparison will be a listing of feasible strategic alternatives. Alternatives which cannot be pursued as a result of constraints or limitations placed on the PM should be carefully evaluated. The PM may wish to request a wavier of the requirement or an easing of the restrictions imposed if appropriate.

E. SELECTING THE STRATEGY TO BE FOLLOWED

Once a PM has identified and evaluated all of the feasible strategic alternatives available to him, he is ready to formulate his acquisition strategy. The objective is to develop the broad concepts to be followed, the major acquisition objectives to be attained and the general policies to be followed in the development of functional plans. The resulting strategy should have the characteristics described in Chapter III. This step is illustrated in Figure 5.4.

In the decision-making process, the PM needs to carefully consider each strategy option and its impact on all other options. To accomplish this, the PM needs to conduct a sensitivity analysis to determine how sensitive a given alternative is in relation to the assumptions made, risks identified, and other alternatives. This assessment will probably be qualitative in nature since the data on which to conduct a quantitative analysis will normally not be available. The primary objective of the analysis is to provide the PM with a degree of confidence that he has considered all of the ramifications of a given strategy decision.

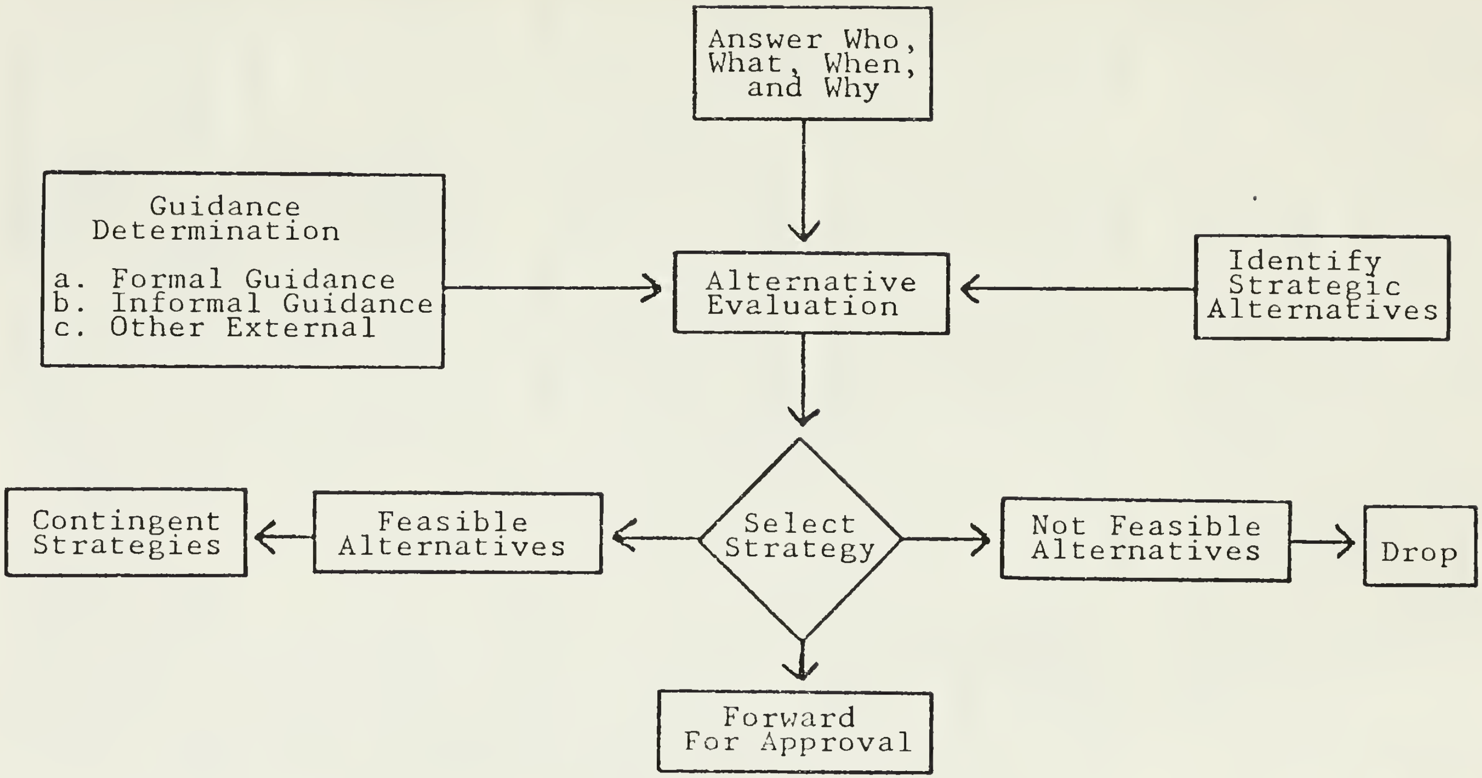


Figure 5.4 Select Best Feasible Strategy.

After selecting a strategy, the PM must deal with the question of what to do with all of the alternatives that were not selected, and what he will do if for some reason the selected strategy encounters difficulties. During the strategy selection process, dozens of decisions were made on individual alternatives based on assumptions made early in the process. Prior to finalizing his strategy, the PM needs to develop contingency strategies which can be invoked if the conditions on which the assumptions were based change. Feasible alternatives not selected for incorporation in the strategy are prime candidates for contingent strategies. These contingency strategies answer the "what if" questions. Examples include strategies to be employed if major changes in program funding occur or if critical technical factors cannot be achieved. The objective is to provide a degree of flexibility to the PM in being able to respond to adversity.

Once the strategy has been selected, the next step is to have it approved by the appropriate decision authority. This is of critical importance since the acquisition strategy will serve as a formal agreement between the PM and the decision authority relative to how the acquisition will be accomplished. It will also provide clear direction to subordinates responsible for developing and executing substrategies and functional plans.

The final question to be answered is whether the contingent strategies developed and the alternatives not selected in the strategy development process should be included in the strategy proposed to higher levels. The distinction made between alternatives not selected and contingent strategies is not always clear. One would expect that an alternative not selected which is still feasible would migrate into the category of contingent strategies. In the view of the researcher, once an alternative is rejected, it should become a contingent strategy. The only alternatives which do not become contingent strategies are those which are no longer feasible.

The majority of individuals interviewed believed that the proposed strategy should not include a detailed discussion of the feasible alternatives not selected. The general feeling was that rejected alternatives should be mentioned but a detailed analysis should not be presented. This would help answer some of the "what if" and "what about" type questions without allowing the strategy to become too complex.

In the view of the researcher, feasible alternatives which were not selected in the decision making-process should be included in the proposed strategy. The coverage should be as brief as possible yet let the reader know the rationale for the decision. For example, a given alternative was not selected because the Program Manager's Charter directed that another alternative would be used. One other reason for including these alternatives is to document the guidance, both formal and informal, that the PM has received and the impact it has had on the decision-making process. Once an option has been rejected and documented in the acquisition strategy, it should not be included in subsequent strategies. Otherwise, the strategies submitted well into the life of the program (e.g., at FSD) would become cluttered and overly complex. The PM, however, needs to track the feasible alternatives not selected since he may have to reconsider them later on in the program. These feasible alternatives could be considered contingent strategies.

Contingent strategies which address major risks and critical success factors, in the view of the researcher, should be included in the acquisition strategy submitted at program initiation. Contingent strategies which do not meet this criteria, however, should not be included. The reason for not including them in the strategy is to keep the strategy broad in scope and not involved in the identification and evaluation of dozens of strategies which would only be used if some unplanned event were to occur. If questioned about a particular risk or assumption, the PM would be able to provide the answer on a case-by-case basis.

F. SUMMARY

This chapter has proposed a general methodology for the development of an acquisition strategy at program initiation. The heart of the process is the identification and evaluation of strategic alternatives and their comparison to planning guidance received. The strategy should serve as the basis for detailed program planning and guide the development of functional plans.

In addition to the strategy selected and proposed to the decision authority, the PM has developed contingent strategies which can be invoked if assumptions made early in the planning process turn out to be invalid. These strategies will assist the PM in responding to changing conditions and program redirections.

VI. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

The following conclusions were developed as a result of this research effort:

1. There is not a clear distinction between the acquisition strategy and the acquisition plan. As discussed in Chapter IV, Section B, there is not a clear distinction made between the acquisition strategy and the acquisition plan in existing regulations, directives, and instructions. The FAR describes the acquisition strategy as the conceptual basis for the program while also stating that the acquisition strategy qualifies as the acquisition plan if written in sufficient detail. Accordingly, the distinction made between broad concepts and detailed plans becomes unclear and results in confusion at the program office level.
2. The latitude available to the PM in the development of his acquisition strategy is highly limited. A significant portion of the acquisition strategy formulation process is driven by detailed planning guidance provided to the PM. As discussed in Chapter IV, the PM is provided with a tremendous amount of formal and informal planning guidance. This guidance restricts the options available to the PM and serves to limit his ability to develop an acquisition strategy for the program. The result is that the PM ends up implementing the fragmented strategy directed by higher levels instead of developing a comprehensive, integrated strategy tailored to his program.

3. The overall strategy, policies, objectives, and priorities of higher levels are not clear or effectively communicated to the PM. One of the first steps in formulating an acquisition strategy is the identification of the overall strategy, policies, objectives, and priorities of higher levels. In order to accomplish this, the PM must look to dozens of program planning documents and try to determine what affect they have on his program. A document does not exist which clearly articulates the overall strategy and objectives of higher levels or assigns priorities to the many objectives involved in the major systems acquisition process. The end result is that the PM must sort out what the overall strategy and policies are and what affect they will have on his program.
4. A long range planning environment does not exist in the major systems acquisition process. As noted in Chapter IV, Section E, there is a recognized need for better long range planning in the major systems acquisition process but there does not appear to be a planning environment or culture to support this need. There appears to be more emphasis on short range planning considerations and day-to-day operations than on long range strategic planning. This is especially true at the initiation of a program.
5. Feasible alternatives not selected for inclusion in the acquisition strategy should become contingent strategies. The feasible alternatives which were not included in the ultimate strategy should be retained as contingent strategies. Alternatives which are no longer feasible because of the selection of another alternative should not be retained as contingent strategies.

B. RECOMMENDATIONS

The following recommendations are appropriate for this study:

1. *A clear distinction should be made between the acquisition strategy and the acquisition plan.* The FAR, DoD FAR Supplement and appropriate directives and instructions should be revised so that a clear distinction is made between the acquisition strategy and the acquisition plan. The conceptual framework upon which program plans are based should be separated from the details found in functional plans. If this distinction is not made, decisions will be made on individual details of the program before the basis on which these decisions should be made is formulated.
2. *The acquisition strategy should serve as a formal agreement between the PM and the appropriate decision authority.* The approved acquisition strategy should serve as a formal agreement between the PM and the decision authority relative to how the program will be managed. This arrangement would provide a degree of stability by warding off changes in program direction.
3. *Prospective PM's should be assigned during the development of the JMSNS.* If the PM is a part of the planning and decision-making prior to the approval of the JMSNS, it would be easier for him to develop the acquisition strategy for the program at program initiation. His early involvement in developing the summary of the acquisition strategy contained in the JMSNS would allow him to influence the initial choice of strategic concepts to be followed.

4. Feasible Alternatives not selected in the strategy formulation process at program initiation should be included in the strategy submitted to higher levels. Feasible strategy alternatives not selected should be included in the strategy submitted at program initiation but the details should be limited. A brief statement that the alternative was considered and the general rationale for the decision should be provided. This will help to satisfy those who would question whether the PM had considered a given alternative.

5. Contingent strategies should be tracked and monitored but only those dealing with major risks or other critical success factors should be addressed in the acquisition strategy. Contingent strategies which address major program risks or other critical success factors should be included in the acquisition strategy but the details should be limited. Other contingent strategies should not be included because they would clutter and overly complicate the strategy. The PM could not be expected to briefly, yet concisely, cover all of the risks and assumptions which would need to be addressed. He would, however, be able to answer specific questions on a case-by-case basis.

6. The methodology for developing an acquisition strategy at program initiation set forth in this thesis should be tested and evaluated. The methodology proposed in Chapter V provides a decision-making structure which could be used by program managers in the development of their program's acquisition strategy at program initiation. The methodology proposed should be tested and evaluated in the major systems acquisition environment.

C. ANSWERS TO THE RESEARCH QUESTIONS

1. What is an acquisition strategy?

   The acquisition strategy is the conceptual basis of the Program Manager's overall plan for satisfying the mission need in the most effective, economical, and timely manner [Ref. 15:p. 34-1]. The strategy evolves through an iterative process which coincides with the development of the system. Initially broad in scope, it becomes increasingly more refined as the system approaches production and deployment.

2. What are the general policies governing the development of an individual program acquisition strategy?

   There are a number of program planning documents which require the development of an acquisition strategy. These include OMB Circular A-109, the FAR, and various instructions and directives issued by the DoD and the individual services. The general policy is that an acquisition strategy will be developed describing the overall plan for the acquisition at the initiation of a program. This strategy is incorporated in the various program documents (e.g., Systems Concept Paper), and updated throughout the life of the program. Listings of items which could typically be included in the acquisition strategy are provided but specific requirements were not found.

3. What are the significant factors which need to be considered in the development of an acquisition strategy?

   There are many factors which need to be considered in the development of an acquisition strategy. These include:

a. The strategy, policies, objectives and priorities of higher levels.

b. The technological, cost, and schedule risks involved;

c. The impact of economic and political pressures;

d. The impact of the program documentation and review process; and

e. Resource limitations and Schedule requirements.

4. How could these factors be integrated into a methodology which could be used by program managers?

The methodology proposed in Chapter V is based on answering the following questions:

a. What is to be accomplished?

b. Why must it be accomplished?

c. Who is responsible for accomplishing it?

d. When is the requirement to be satisfied?

e. How is the requirement to be satisfied?

The development of a program's acquisition strategy, which will determine how the requirement will be satisfied, is largely based on the amount of guidance provided to the PM and the answers to the preceding questions. The answer to the question of how the acquisition will be accomplished involves determining what the strategy, policies, objectives, and priorities of higher levels are; determining all of the strategy options available; and evaluating these options in relation to the guidance provided. The result of this process will be a list of feasible strategy options that are available to the PM. The task facing the PM is the consolidation and integration of these feasible alternatives into a strategic plan which will provide the necessary guidance to functional planners and provide the broad concepts, objectives and policies which will guide the acquisition.

D. RECOMMENDATIONS FOR FURTHER STUDY

1. A study should be conducted to determine the latitude currently available to the PM in the development of an acquisition strategy. In particular, the study should assess the impact of the program documentation and review process and the effect that existing regulations, directives and instructions have on the strategy options available to the PM.
2. A number of program acquisition strategies should be studied to determine how they evolved during the course of the acquisition.
3. An evaluation of the strategy formulation procedures of private firms should be conducted to determine if the principles and procedures used are transferable to the major systems acquisition process.

APPENDIX A

INDIVIDUALS CONTRIBUTING TO THE RESEARCH EFFORT

Barnett, W. J., Program Manager (Acting) LVTX (PMS 300), Naval Sea Systems Command, 21 June 1984.

Brinker, S., LTCOL, USAF, Systems and Logistics Contracting Division, Directorate of Contracting and Manufacturing Policy, Headquarters, USAF, 26 June 1984.

Chaker, L., Head, Material Acquisition Support Branch, Material Division, Installations and Logistics Department, Headquarters, USMC, 25 June 1984.

DeMayo, P., CAPT, USN, Assistant Commander for Contracts (AIR 02), Naval Air Systems Command, 23 August 1984.

Duge, R., Program Engineer, LVTP-7A1 (PMS 300), Naval Sea Systems Command, 21 June 1984.

Evey, W. L., Deputy Director, Directorate of Systems and Support Contracts, Deputy Chief of Staff for Contracting and Manufacturing, Air Force Systems Command, 26 June 1984.

Garner, R., MAJ, USMC, Deputy Program Manager, Joint Services Vertical Lift Aircraft (PMA 275), Naval Air Systems Command, 27 June 1984.

Hunter, W. N., OFPP Chair, Defense Systems Management College, 24 September 1984.

Knight, W., CDR, USN, Acquisition and Business Policy Branch (MAT 0211C), Naval Material Command, 24 September 1984.

Minin, L. R., Deputy Director, Surface to Surface Missile Weapon Systems Subgroup, Naval Sea Systems Command, 26 September 1984.

Rappaport, N. L., Deputy Director, Systems and Logistics Contracting Division, Directorate of Contracting And Manufacturing Policy, Headquarters, USAF, 26 June 1984.

Ruppert, J. M., LCDR, USN, Business Financial Manager, Strike Training System Program Office (PMA 273), Naval Air Systems Command, 26 September 1984.

Sheldon, J. S., Acquisition Policy Specialist, Acquisition and Policy Division, Directorate for Development Engineering and Acquisition, Army Rediness Command, 26 June 1984.

Steen, C. H., Professor, Policy and Organization Management Department, Defense Systems Management College, 21 June 1984.

Swanson, L. R., LTCOL, USAF, Acquisition Management Laboratory, Technical Management Department, Defense Systems Management College, 21 June 1984.

APPENDIX B

INTERVIEW QUESTIONNAIRE

1. How would you define acquisition strategy?

2. What are the major factors that need to be considered in the development of an acquisition strategy?

3. Which of these factors "drive" the decision-making process (what are the key factors)?

4. Which of these factors is the most difficult to definitize?

5. How do you identify these factors?

6. When must these factors be identified (timetable)?

7. How are these factors integrated into a cohesive plan?

8. What advice would you give a prospective program manager so that he could avoid some of the "pitfalls" involved in developing an acquisition strategy at program initiation?

9. What management tools are used to ensure that all options have been identified?

10. What steps are taken to ensure that future options are not inadvertently excluded as a result of decisions made early in the process?

11. If an option is inadvertently excluded, how do you recapture it?

12. How are the different initiatives (e.g., competition, standardization, inter/intraoperability, spare part breakout) accommodated?

13. What resources are available to the program manager to assist him in the development of an acquisition strategy?
    Personnel?
    Directives, instructions, manuals, guides?
    Management tools?

14. What resources does the program manager need within the program office in order to develop an effective acquisition strategy?

15. What support external to the program office is required?

16. What are the key procedural aspects involved in developing an acquisition strategy at program initiation?

17. How is the acquisition strategy refined during the evolution of the program?

18. What steps could be taken by a program manager to enhance the usefulness of the acquisition strategy as a management tool?

19. What types of constraints or limitations are placed on the development of an acquisition strategy?

20. In your experience, is the acquisition strategy truely a "living document" or is it produced and forgotten?

APPENDIX C

EXCERPT OF SUBPART 7.1, FEDERAL ACQUISITION REGULATION

7.105 Contents of written acquisition plans.

In order to facilitate attainment of the acquisition objectives, the plan must identify those milestones at which decisions must be made (see subparagraph (b)(19) below). The plan shall address all the technical, business, management, and other significant considerations that will control the acquisition. The specific content of plans will vary, depending on the nature, circumstances, and stage of the acquisition. In preparing the plan, the planner shall follow the applicable instructions in paragraphs (a) and (b) below, together with the agency's implementing procedures.

(a) Acquisition background and objectives.

1. Statement of need. Introduce the plan by a brief statement of the need. Summarize the technical and contractual history of the acquisition. Discuss feasible acquisition alternatives and any related in-house effort.

2. Applicable conditions. State all significant conditions affecting the acquisition, such as (i) requirements for compatibility with existing or future systems or programs and (ii) any known cost, schedule, and capability or performance constraints.

3. Cost. Set forth the established cost goals for the acquisition and the rationale supporting them, and discuss related cost concepts to be employed, including, as appropriate, the following items:

   (i) Life-cycle cost. Discuss how life-cycle cost will be considered. If it is not used, explain why. If appropriate, discuss the cost model used to develop life-cycle cost estimates.

   (ii) Design-to-cost. Describe the design-to-cost objective(s) and underlying assumptions, including the rationale for quantity, learning-curve, and economic adjustment factors. Describe how objectives are to be applied, tracked, and enforced. Indicate specific related solicitation and contractual requirements to be imposed.

   (iii) Application of should-cost. Describe the application of should-cost analysis to the acquisition.

4. Capability of performance. Specify the required capabilities or performance characteristics of the supplies or services being acquired and state how they are related to the need.

5. Delivery or performance-period requirements. Describe the basis for establishing delivery or performance- period requirements. Explain and provide reasons for any urgency if it results in

concurrency of development and production or constitutes justification for noncompetitive contracting.

6. Trade-offs. Discuss the expected consequences of trade-offs among the various cost, capability or performance, and schedule goals.

7. Risks. Discuss technical, cost and schedule risks and describe what efforts are planned or underway to reduce risk and the consequences of failure to achieve goals. If concurrency of development and production is planned, discuss its effects on cost and schedule risks.

(b) Plan of action.

1. Sources. Indicate the prospective sources of supplies and/or services that will meet the need. Consider required sources of supplies and services. Include considerations of small business, small disadvantaged business, and labor surplus area concerns. If the acquisition or a part of it is for commercial or commercial-type products, address the results of market research and analysis and indicate their impact on the various elements of the plan.

2. Competition. Describe how will be sought, promoted, and sustained throughout the course of the acquisition. Discuss component breakout for competition, if applicable. If noncompetitive contracting is being recommended, identify the source and discuss why competition cannot be used. Justification for a noncompetitive acquisition may be referenced and attached to the plan.

3. Source-selection procedures. Discuss the source-selection procedures for the acquisition, including the timing for submission and evaluation of proposals, and the relationship of evaluation factors to the attainment of the acquisition objectives.

4. Contracting considerations. For each contract contemplated, discuss contract type selection; use of multiyear contracting, options, or other special contracting methods; any special clauses, special solicitation provisions, or FAR deviations required; whether formal advertising or negotiation will be used and why; whether equipment will be acquired by lease or purchase and why; and any other contracting considerations.

5. Authority for contracting by negotiation. If contracting by negotiation is contemplated, cite the authority for using negotiation and discuss the basis for selecting that particular authority. If a D&F to justify negotiation will be required and the acquisition plan will be used to support that D&F, provide the information needed.

6. Budgeting and funding. Describe how budget estimates were derived and discuss the schedule for obtaining adequate funds at the time when they are required.

7. Product descriptions. In accordance with Part 10, explain the choice of product description types to be used in the acquisition.

8. Priorities, allocations, and allotments. When urgency of the requirement dictates a particularly short delivery or performance schedule, certain priorities may apply. If so, specify the method for obtaining and using priorities, allocations, and allotments, and the reasons for them.

9. Contract versus Government performance. Address the consideration given to OMB Circular No. A-76.

10. Management information requirements. Discuss, as appropriate, what management system will be used by the Government to monitor the contractor's effort.

11. Make or buy. Discuss any consideration given to make-or-buy programs.

12. Test and evaluation. To the extent applicable, describe the test program of the contractor and the Government. Describe the test program for each major phase of a major system acquisition. If concurrency is planned, discuss the extent of testing to be accomplished before production release.

13. Logistics considerations. Describe-

    (i) The assumptions determining contractor or agency support, both initially and over the life of the acquisition, including consideration of contractor or agency maintenance servicing and distribution of commercial products;

    (ii) The reliability, maintainability, and quality assurance requirements, including any planned use of warranties; and

    (iii) The requirements for contractor data (including repurchase data) and data rights, their estimated costs, and the use to be made of the data.

14. Government-furnished property. Indicate any property to be furnished to contractors, including material and facilities, and discuss any associated considerations, such as its availability or the schedule for its acquisition.

15. Government-furnished information. Discuss any Government information, such as manuals, drawings, and test data, to be provided to prospective offerors and contractors.

16. Environmental considerations. Discuss environmental issues associated with the acquisition, the applicability of an environmental assessment or environmental impact statement, the proposed resolution of environmental issues, and any environment-related requirements to be included in solicitations and contracts.

17. Security considerations. For acquisitions dealing with classified matters, discuss how adequate security will be established, maintained, and monitored.

18. Other considerations. Discuss, as applicable, energy conservation measures, standardization concepts, the industrial readiness program, the Defense Production

Act, the Occupational Safety and Health Act, foreign sales implications, and any other matters germane to the plan not covered elsewhere.

19. Milestonees for the acquisition cycle. Address the following steps and any others appropriate:

    Acquisition plan approval.
    D&F approval.
    Completion of acquisition-package preparation.
    Statement of work.
    Specifications.
    Data requirements.
    Purchase request.
    Issuance of solicitation.
    Evaluation of proposals, audits, and field reports.
    Beginning and completion of negotiations.
    Contract preparation, review, and clearance.
    Contract award.

20. Identification of participants in acquisition plan preparation. List the individuals who participated in preparing the acquisition plan, giving contact information for each.

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